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Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary.)

Sheet 1

of 10

Complete if Known

Application Number:	09/981,312
Filing Date:	10/15/2001
First Named Inventor:	Mitchell A. Avery
Art Unit:	1614
Examiner Name:	Andrea D. Souza-Small
Attorney Docket Number:	1786

U. S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	FOREIGN PATENT DOCUMENTS			
		Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear
		Country Code ³ –Number ⁴ –Kind Code ⁵ (if known)			
<i>JTP</i>		WO 98/54966	12/10/1998	Merck & CO, Inc	
		WO 99/02514	01/21/1999	Bristol Meyers Squibb	
		WO 99/67253	12/29/1999	Novartis AG et al.	
		WO 99/67252	12/29/1999	Novartis AG et al.	
		WO 99/66028	12/23/1999	Novartis AG et al.	
<i>JTP</i>		WO 99/59985	11/25/1999	Novartis AG et al.	

Examiner
Signature

Fiona T. Powers

Date Considered

6/21/04

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Examiner Name	Andrea D. Souza Small
Attorney Docket Number	1786

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FTP		WO 99/54330	10/28/1999	Bristol Meyers Squibb	
		WO 99/54318	10/28/1999	Bristol Meyers Squibb	
		WO 99/43653	09/02/1999	Sloan Kettering	
		WO 98/25929	06/18/1998	Novartis AG et al.	
		WO 99/42602	08/26/1999	Novartis AG et al.	
FTP		WO 02/08440	01/31/2002	KosanBioscience	

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ZTP		WO 01/73103	10/04/2001	Bristol Meyers Squibb	
ZTP		WO 01/70716	09/27/2001	Bristol Meyers Squibb	

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Attorney Docket Number

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Application Number	09/981,312
Filing Date	10/15/2001
First Named Inventor	Michell A. Avery
Art Unit	1614
Examiner Name	Andrea D. Souza-Small

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
FTP		HOFLÉ, G.; GLASER, NO.; LEIBOLD, T.; SEFKOW, M. Epothilone A-D and their Thiazole-Modified Analogs as Novel Anticancer Agents. Pure and Applied Chemistry 1999, Volume 71, Pages 2019-2024.	
		ZHU, B.; PANEK, J.S. Total Synthesis of Epothilone A. Organic Letters 2000, Vol. 2, Pages 2575-2578.	
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		SAWADA, D.; SHIBASAKI, M. Enantioselective Total Synthesis of Epothilone A Using a Multifunctional Asymmetric Catalyses. Angewandte Chemie, International Edition 2000, Vol. 39, Pages 209-213.	
		KALESSE, M.; QUITSCHALLE, M.; CLAUS, E.; GERLACH, K.; PAHL, A.; MEYER, H.H. The Formal Total Synthesis of Epothilone A. European Journal of Organic Chemistry 1999, Pages 2817-2823.	
		WHITE, J.D.; SUNDERMANN, K.F.; CARTER, R.G. Improved Synthesis of Epothilone B Employing Alkylation of an Alkyne for Assembly of Subunits. Organic Letters 1999, Vol. 1, Pages 1431-1434.	
		SCHINZER, D.; BAUER, A.; SCHIEBER, J. Synthesis of (-)-Epothilone B. Chemistry--A European Journal 1999, Vol. 5, Pages 2492-2500.	
FTP		NICOLAOU, K.C.; HEPWORTH, D.; FINLAY, M.R.V.; PAUL KING, N.; WERSCHKUN, B.; BIGOT, A. Synthesis of 16-Desmethyllepothilone B: Improved Methodology for Rapid, Highly Selective and Convergent Construction of Epothilone B and and Analogs. Chemical Communications (Cambridge) 1999, Pages 519-520.	

Examiner Signature	Fiona T. Powers	Date Considered	6/21/04
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STATEMENT BY APPLICANT**

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Sheet	5	of	10	Attorney Docket Number	1786
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NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
FTP		TAYLOR, R.E.; GALVIN, G.M.; HILFIKER, K.A.; CHEN, Y. A Formal Synthesis of Epothilone A: Enantioselective Preparation of the C1-C6 and C7-C12 Fragments. <i>Journal of Organic Chemistry</i> 1998, Vol. 63, Pages 9580-9583.	
↑		BALOG, A.; HARRIS, C.; SAVIN, K.; ZHANG, X.-G.; CHOU, T.C.; DANISHEFSKY, S.J. A Novel Aldol Condensation with 2-Methyl-4-Pentenal and its Application to an Improved Total Synthesis of Epothilone B. <i>Angewandte Chemie, International Edition</i> 1998, Vol. 37, Pages 2675-2678.	
		NICOLAOU, K.C.; ROSCHANGAR, F.; VOURLOUMIS, D. Chemical Biology of Epothilones. <i>Angewandte Chemie, International Edition</i> 1998, Vol. 37, Pages 2014-2045.	
		SCHINZER, D.; BAUER, A.; SCHIEBER, J. Synthesis of Epothilones, Stereoselective Routes to Epothilone B. <i>Synlett</i> 1998, Pages 861-864.	
		MAY, S.A.; GRIECO, P.A. Total Synthesis of (-)-Epothilone B. <i>Chemical Communications (Cambridge)</i> 1998, Pages 1597-1598.	
		NICOLAOU, K.C.; FINLAY, M.R.V.; NINKOVIC, S.; SARABIA, F. Total Synthesis of 26-Hydroxy-Epothilone B and Related Analogs via a Macrolactonization Based Strategy. <i>Tetrahedron</i> 1998, Vol. 54, Pages 7127-7166.	
		NICOLAOU, K.C.; HE, Y.; ROSCHANGAR, F.; KING, N.P.; VOURLOUMIS, D.; LI, T. Total Synthesis of Epothilone E and Analogs with Modified Side Chains Through the Stille Coupling Reaction. <i>Angewandte Chemie, International Edition</i> 1998, Vol. 37, Pages 84-87.	
FTP		NICOLAOU, K.C.; SARABIA, F.; NINKOVIC, S.; FINLAY, M.R.; BODDY, C.N.C. Probing the Ring Size of Epothilones: Total Synthesis of [14]-, [15]-, [17]-, and [18] Epothilones A. <i>Angewandte Chemie, International Edition</i> 1998, Vol. 37, Pages 81-84.	

Examiner Signature	<i>Fiona T. Powers</i>	Date Considered	6/21/04
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		NICOLAOU, K.C.; VALLBERG, H.; KING, N.P.; ROSCHANGAR, F.; HE, Y.; VOURLOUMIS, D.; NICOLAOU, C.G. Total Synthesis of Oxazole- and Cyclopropane-Containing Epothilone A Analogs by the Olefin Metathesis Approach. Chemistry--A European Journal 1997, Vol. 3, Pages 1957-1970.	
		NICOLAOU, K.C.; NINKOVIC, S.; FINLAY, M.R.V.; SARABIA, F.; LI, T. Total Synthesis of 26-Hydroxyepothilone B and Related Analogs, Chemical Communications (Cambridge) 1997, Pages 2343-2344.	
		MENG, D.; BERTINATO, P.; BALOG, A.; SU, D.-S.; KAMENECKA, T.; SORENSEN, E.; DANISHEFSKY, S.J. Total Synthesis of Epothilones A and B. Journal of the American Chemical Society 1997, Vol. 119, Pages 10073-10092.	
		NICOLAOU, K.C.; NINKOVIC, S.; SARABIA, F.; VOURLOUMIS, D.; HE, Y.; VALLBERG, H.; FINLAY, M.R.V.; YANG, Z. Total Synthesis of Epothilones A and B via a Macrolactonization-Based Strategy. Journal of the American Chemical Society 1997, Vol. 119, Pages 7974-7991.	
		BALOG, A.; MENG, D.; KAMENECKA, T.; BERTINATO, P.; SU, D.-S.; SORENSEN, E.J.; DANISHEFSKY, S.J. Total Synthesis of (-)-Epothilone A. Angewandte Chemie, International Edition in English, 1996, Vol. 35, Pages 2801-2803.	
FTP		YANG, X.; HE, Y.; VOURLOUMIS, D.; VALLBERG, H.; NICOLAOU, K.C. Total Synthesis of Epothilone A: The Olefin Metathesis Approach. Angewandte Chemie, International Edition in English 1997, Vol. 36, Pages 166-168.	

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		NICOLAOU, K.C.; SARABIA, F.; NINKOVIC, S.; YANG, Z. Total Synthesis of Epothilone A: The Macrolactonization Approach. <i>Angewandte Chemie, International Edition in English</i> 1997, Vol. 36, Pages 525-527.	
		SU, D.-S.; MEND, D.; BERTINATO, P.; BALOG, A.; SORENSEN, E.J.; DANISHEFSKY, S.J.; ZHENG, Y.-H.; CHOU, T.-C.; HE, L.; HORWITZ, S.B. Total Synthesis of (-)-Epothilone B: An Extension of the Suzuki Coupling Method and Insights into	
		Structure-Activity Relationships of the Epothilones. <i>Angewandte Chemie, International Edition in English</i> 1997, Vol. 36, Pages 757-759.	
		APPENDINO, G.; CASIRAGHI, G. The Synthesis of Epothilones: Highlights from a Year's Race. <i>Chemtracts--Organic Chemistry</i> 1998, Vol. 11, Pages 678-696.	
		BIJOY, P.; AVERY, M.A. Synthetic Studies Directed Towards Epothilone A: Enantioselective Synthesis of a C7-C15 Carboxaldehyde Segment. <i>Tetrahedron Letters</i> 1998, Vol. 39, Pages 209-212.	
		BRABANDER, J.D.; ROSSET, S.; BERNARDELLI, G. Towards a Synthesis of Epothilone A: Rapid Assembly of the C1-C6 and C7-C12 Fragments. <i>Synlett</i> 1997, Pages 824-826.	
		CASADEI, M.A.; GALLI, C.; MANDOLINI, L.; Ring-Closure Reations. 22. Kinetics of Cyclization of Diethyl (w-Bromoalkyl) Malonates in the Range of 4- to 21- Membered Rings. Role of Ring Strain. <i>Journal of American Chemical Society</i> 1984, Vol. 106, Pages 1051-1056.	
FTP		MORIKAWA, K.; PARK, J.; ANDERSSON, P.G.; HASHIYAMA, T.; SHARPLESS, K.B. Catalytic Asymmetric Dihydroxylation of Tetrasubstituted Olefins. <i>Journal of American Chemical Society</i> 1993, Vol. 115, Pages 8463-8464.	

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JTP		BOLLAG, D.M.; MCQUEENEY, P.A.; ZHU, J.; HENSENS, O.; KOUPAL, L.; LIESCH, J.; GOETZ, M.; LAZARIDES, E.; WOODS, C.M. Epothilones, A New Class of Microtubule-Stabilizing Agents with a Taxol-Like Mechanism of Action.	
↑		Chemtracts-Organic Chemistry 1998. Vol. 11. Pages 671-677.	
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Examiner Signature	<i>Fiona T. Powers</i>	Date Considered	6/21/04
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1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 9

of 10

Application Number	09/981,312
Filing Date	10/15/2001
First Named Inventor	Mitchell A. Avery
Art Unit	1614
Examiner Name	Andrea D. Souza-Small

Attorney Docket Number

1786

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
FTP		HASEHM, M.A.; JUNG, A.; RIES, M.; KIRSCHNING, A. Erratta and Addenda 1998, Page 195.	
↑		DEBRABANDER, J.; ROSSET, S.; BERNADINELLI, G. Erratta and Addenda 1997, Page 824.	
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FTP		MULZER, J. Epothilone B and Its Derivatives as Novel Antitumor Drugs: Total and Partial Synthesis and Biological Evaluation. Monatshefte fur Chemie 2000, Vol. 131, Pages 205-238.	

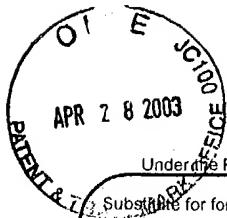
Examiner Signature	<i>Fiona T. Powers</i>	Date Considered	6/21/04
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¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet	10	of	10	Attorney Docket Number	1786
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NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
FTP		NICOLAOU, K.C.; HEPWORTH, D.; KING, N.P.; FINLAY, M.R.V.; SCARPELLI, R.; MANUELA, M.; PEREIRA, A.; BOLLMUCK, B.; BIGOT, A.; WERSCHKUN, B.; WINSSINGER, N. Total Synthesis of 16-Desmethylepothilone B, Epothilone B10.	
		Epothilone F, and Related Side Chain Modified Epothilone B Analogues. European Chemical Journal 2000, Vol. 6, Pages 2783-2800.	

Examiner Signature	<i>Fiona T. Powers</i>	Date Considered	<i>6/21/04</i>
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ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version 18.0

Stylesheet Version v18.0

Title of Invention	SYNTHESIS OF EPOTHILONES AND RELATED ANALOGS				
RECEIVED					
APR 28 2003					
TECH CENTER 1600/2900					
Application Number: 09/981312					
Confirmation Number: 4970					
First Named Applicant: Mitchell Avery					
Attorney Docket Number: 1786					
Art Unit: 1626					
Examiner: Andrea D. Souza Small					
Search string: (6284781 or 6242469 or 6316630 or 6300355 or 6380394 or 5969145 or 6156905 or 6043372 or 6350878 or 6204388 or 6211412 or 6262094).pn.					
US Patent Documents					
Note: Applicant is not required to submit a paper copy of cited US Patent Documents					
init	Cite.No.	Patent No.	Date	Patentee	Kind
1	6284781	2001-09-04	Danishefsky et al.		
2	6242469	2001-06-05	Danishefsky et al.		
3	6316630	2001-11-13	Danishefsky et al.		
4	6300355	2001-10-09	Danishefsky et al.		
5	6380394	2002-04-30	Nicolaou et al.		
6	5969145	1999-10-19	Schinzer et al.		
7	6156905	2000-12-05	Schinzer et al.		
8	6043372	2000-03-28	Schinzer et al.		
9	6350878	2002-02-26	Altmann et al.		
10	6204388	2001-03-20	Danishefsky et al.	B1	
11	6211412	2001-04-03	Georg et al.	B1	
12	6262094	2001-07-17	Hoefle et al.	B1	

Remarks

Not : Remarks are not for responding to an office action.

The U.S. Patents identified herein have come to the attention of the undersigned in connection with the subject application. The identification of these U.S. patents is for the purpose of meeting Applicant's duty of disclosure under 37 C.F.R. Section 1.56 and is not intended to be an admission that any of these U.S. patents constitute prior art as to the invention disclosed and claimed in the subject application. Further, Applicant makes no representation whether any of these U.S. Patents qualify as prior art under 35 U.S.C. 102. The Examiner is courteously solicited to enter an expeditious allowance of this application. If any questions remain to be addressed, it is respectfully requested that the filing attorney for the Applicant be contacted.

Signature

Examiner Name	Date
<i>Fiona T. Powers</i>	<i>6/21/04</i>